

MECHANISM OF A WATCH.

A Wonderful Little Machine That Took Hundreds of Years to Perfect.

Open your watch and look at the little wheels, springs and screws, each an indispensable part of the whole wonderful machine. Notice the busy little balance wheel as it flies to and fro unceasingly, day and night, year in and year out. This wonderful little machine is the result of hundreds of years of study and experiment. The watch carried by the average man is composed of 98 pieces, and its manufacture embraces more than 2,000 distinct and separate operations. Some of the smallest screws are so minute that the unaided eye cannot distinguish them from steel filings or specks of dirt. Under a powerful magnifying glass a perfect screw is revealed. The slit in the head is 2-1,000 of an inch wide. It takes 208,000 of these screws to weigh a pound, and a pound is worth \$1.883. The hairspring is a strip of the finest steel, about 1/16 inches long and 1-100 inch wide and 27-10,000 inch thick. It is coiled up in spiral form and finely tempered. The process of tempering these springs was long held as a secret by the few fortunate ones possessing it and even now is not generally known. Their manufacture requires great skill and care. The strip is gauged to 20-1,000 of an inch, but no measuring instrument has yet been devised capable of fine enough gauging to determine beforehand by the size of the strip what the strength of the finished spring will be. A 1-20,000 part of an inch difference in thickness of the strip makes a difference in the running of a watch of about six minutes per hour. The value of these springs when finished and placed in watches is enormous in proportion to the material from which they are made. A comparison will give a good idea. A ton of steel made up into hairsprings when in watches is worth more than 12 1/2 times the value of the same weight in gold. Hairspring wire weighs 1-20 of a grain to the inch. One mile of wire weighs less than half a pound. The balance gives five vibrations every second, 300 every minute, 18,000 every hour, 432,000 every day, and 157,680,000 every year. At each vibration it rotates about 1 1/4 times, which makes 107,100,000 every year. In order that we may better understand the stupendous amount of labor performed by these tiny works, let us make a comparison. Take, for instance, a locomotive with 6 foot driving wheels. Let its wheels be run until they have given the same number of revolutions that a watch does in one year, and they will have covered a distance equal to 28 complete circuits of the earth. All this a watch does without other attention than winding once every 24 hours.—Locomotive Engineer.

Effect of Lightning on the Body.

In describing the recent death of a boy by lightning a dispatch stated that an accurate picture of trees and foliage in the vicinity of the accident was made on the boy's body, which phenomenon was supposed to have been produced by the lightning in a manner similar to that of making pictures or photography. This, however, is not correct. While such marks are observable occasionally on the bodies of persons killed they bear no relation whatever to foliage of surrounding trees, although they bear a certain resemblance to those objects. There is really no photographing of the image of the trees on the body. That the actual cause is quite different can be proved by experiment in the laboratory. When electricity is discharged at high tension, as lightning is, on the surface of a body having a poor conducting power, a luminous arborescent image is formed, showing the path of one or more of the sparks resulting from the discharge. This was most beautifully shown in the experiments carried out with high tension currents in London by Swinburne. The current would exhibit scattered lines of light that would develop into most exquisite tracery and take the form of plants or trees. The theory of this phenomenon is that the irregular courses taken by the spark may be due to the compression of air in the path of the discharge, or to superior conductivity of some parts of the surface of the body.—St. Louis Globe-Democrat.

Wise Advice.

In the "Life of Rowland Hill," by Mr. Charlesworth, published in London some years ago, there are many anecdotes of that remarkable man. At one time when Mr. Hill was preaching for the benefit of a charity a note was handed to him, the writer of which asked whether it would be right for a bankrupt to contribute to the good cause. "No," said the preacher after he had read the note, "but, my friends, I would advise you who are not insolvent not to pass the plate this evening, as people will be sure to say, 'There goes the bankrupt.'"—Youth's Companion.

KEEP UP WITH THE TIMES.

Don't cling to the imperfect things. Do you use cereal foods on your breakfast table? Then you need cream. Borden's Peerless Brand Evaporated Cream is decidedly superior in richness and flavor to ordinary milk or cream.

A SURE CURE FOR PILES.

Itching Piles are known by moisture like perspiration, causing intense itching when warm. This form, as well as Blind, Bleeding or Protruding, yield at once to Dr. Bosanko's Pile Remedy, which acts directly on the parts affected, absorbs tumors, allays itching and effects a permanent cure. See Druggist or mail Circulars free. Dr. Bosanko, 233 Arch Street, Philadelphia, Pa. Sold by J. W. Cobb.

TO CANNERS AND SEINERS.

Just received from the Willapa Harbor manufactory, a fresh supply of Hemlock Tannin Extract for tanning fish nets, seines, etc. W. B. ADAIR, Agent, 454 Third Street.

All the patent medicines advertised in this paper, together with the choice perfume, and toilet articles, etc. can be bought at the lowest prices at J. W. Cobb's drug store, opposite Occident Hotel, Astoria.

C. R. F. P. U. NOTICE.

Regular monthly meeting of the Columbia River Fishermen's Protective Union will be held at the reading room Saturday, June 2, 1894, at 5 p. m. sharp. Members in good standing are requested to be present, and have their book or receipt along. Final reading and adoption of resolution of amendment to the Constitution, Article 8, reduction of the monthly dues. S. OFUS JENSEN, Secretary.

LADIES, ATTENTION!

Carpets beaten and replaced with the greatest dispatch by C. Axten, Leave orders at Porter's Furniture Store, No. 517 Second street.

THE YELLOW GLOW OF THE HORIZON.

Painted on the sky by the setting sun, is beautiful. Not so the yellow suffusion of a face tinged with bile. And of the unspeakable discomfort that bile in the wrong place produces. Twinges in the right side and under the right shoulder blade, nausea, vertigo, sick headache, constipation, faulty digestion. Not in an instant can the symptoms of biliousness be dispelled, but persistence in the use of Hostetter's Stomach Bitters will eradicate them, restore digestion and regularity of the bowels, and counteract tendencies to more aggravated complaints, which an interruption of these functions begets. Rheumatism, inactivity of the kidneys and bladder, neuralgia, and inability to sleep, are also remedied by this genial preventive and restorative of nerve force and tranquillity. As an antidote to the poison of malaria, it is unfailing and prompt. A wineglassful three times a day.

ORDINANCE NO. 1829.

(As Amended.) An Ordinance to Change the Names of Certain Streets Within the City of Astoria.

The City of Astoria does ordain as follows: Section 1. The streets within the City of Astoria running east and west, or in an easterly or westerly direction, and hereinafter called as they have heretofore been known and designated, shall be, and they are, hereby changed in name as follows: Concomly street, in McClure's, and First street, in Adair's, to Astor street. Chenamus street, in McClure's, and Second street, in Adair's, to Bond street. Squemoque street, in McClure's; Water street, in Shively's, and Third street, in Adair's, to Commercial street. Jefferson street, in McClure's; Cushman's Court street, in Shively's, and Fourth street, in Adair's, to Duane street.

Astor street, in McClure's, and Cedar street, in Shively's, to Exchange street. Court street, in McClure's, Wall street and Hemlock street, in Shively's, and Fifth street, in Adair's, to Franklyn avenue. Seventh street, in McClure's; Arch street and Pine street, in Shively's, and Sixth street, in Adair's, to Grand avenue. Eighth street, in McClure's; Wing street, in Shively's, and Seventh street, in Adair's, to Harrison avenue. Ninth street, in McClure's; Spruce street and Tulip street, in Shively's, and Eighth street, in Adair's, to Irving avenue. Tenth street, in McClure's, and Berry street, in Shively's, to Jerome avenue. Eleventh street, in McClure's; Fir street, in Shively's, and Powers avenue, in Adair's, to Kensington avenue. Twelfth street, in McClure's, and Alder street, in Shively's, to Lexington avenue.

Thirteenth street, in McClure's; South street and Charter street, in Shively's, to Madison avenue. Summit avenue, in McClure's, and Summit avenue, in Shively's, to Niagara avenue. Section 2. The streets within the City of Astoria running north and south, or in a northerly and southerly direction, and hereinafter called, as they have heretofore been known and designated, shall be, and they are, hereby changed in name as follows: McClure street, in McClure's, to First street. Spruce street, in McClure's, to Second street. Madison street, in McClure's, to Third street. Jackson street, in McClure's, to Fourth street. Polk street, in McClure's, to Fifth street. Washington street, in McClure's, to Sixth street. Lafayette street, in McClure's, to Seventh street. Benton street, in McClure's, to Eighth street. Main street, in McClure's, to Ninth street. Cass street, in McClure's, to Tenth street. Genevieve street, in McClure's, to Eleventh street. Olney street, in McClure's, to Twelfth street. Ferrell street, in McClure's, to Thirteenth street. West Ninth street, in Shively's, to Fourteenth street. West Eighth street, in Shively's, to Fifteenth street. West Seventh street, in Shively's, to Sixteenth street. West Sixth street, in Shively's, to Seventeenth street. West Fifth street, in Shively's, to Eighteenth street. West Fourth street, in Shively's, to Nineteenth street. West Third street, in Shively's, to Twentieth street. West Second street, in Shively's, to Twenty-first street. West First street, in Shively's, to Twenty-second street. Salmon street, in Shively's, to Twenty-third street. Broadway, in Shively's, to Twenty-fourth street. East First street, in Shively's, to Twenty-fifth street. East Second street, in Shively's, to Twenty-sixth street. East Third street, in Shively's, to Twenty-seventh street. East Fourth street, in Shively's, to Twenty-eighth street. East Fifth street, in Shively's, to Twenty-ninth street. East Sixth street, in Shively's, to Thirtieth street. East Seventh street, in Shively's, to Thirty-first street. East Eighth street, in Shively's, to Thirty-second street. Auger avenue, in Adair's, to Thirty-third street. Abernathy avenue, in Adair's, to Thirty-fourth street. Bonneville avenue, in Adair's, to Thirty-fifth street. Brennan avenue, in Adair's, to Thirty-sixth street. Canby avenue, in Adair's, to Thirty-seventh street. Dickinson avenue, in Adair's, to Thirty-eighth street. Calmes avenue, in Adair's, to Thirty-ninth street. Gwin avenue, in Adair's, to Fortieth street. Jordan avenue, in Adair's, to Forty-first street. Lane avenue, in Adair's, to Forty-second street. Mendell avenue, in Adair's, to Forty-third street.

Polk avenue, in Adair's, to Forty-fourth street. Ogden avenue, in Adair's, to Forty-fifth street. Weicker avenue, in Adair's, to Forty-sixth street. First street, in Alderbrook, to Forty-seventh street. Second street, in Alderbrook, to Forty-eighth street. Third street, in Alderbrook, to Forty-ninth street. Fourth street, in Alderbrook, to Fiftieth street. Fifth street, in Alderbrook, to Fifty-first street. Sixth street, in Alderbrook, to Fifty-second street. Seventh street, in Alderbrook, to Fifty-third street. Eighth street, in Van Dusen's, to Fifty-fourth street. Ninth street, in Van Dusen's, to Fifty-fifth street. Tenth street, in Van Dusen's, to Fifty-sixth street. Eleventh street, in Van Dusen's, to Fifty-seventh street. Twelfth street, in Van Dusen's, to Fifty-eighth street. Thirteenth street, in Van Dusen's, to Fifty-ninth street. Fourteenth street, in Van Dusen's, to Sixtieth street. Fifteenth street, in Van Dusen's, to Sixty-first street. Sixteenth street, in Van Dusen's, to Sixty-second street. Seventeenth street, in Van Dusen's, to Sixty-third street. Eighteenth street, in Van Dusen's, to Sixty-fourth street. Nineteenth street, in Van Dusen's, to Sixty-fifth street. Twentieth street, in Van Dusen's, to Sixty-sixth street. Section 3. Said streets and avenues shall hereafter be known and designated by the new or changed names, and not otherwise. Section 4. All ordinances or parts of ordinances in conflict with this ordinance be and the same are hereby repealed. Passed the Common Council April 24, 1894. Attest: K. OSBURN, Auditor and Police Judge City of Astoria. Approved April 26th, 1894. ALFRED KINNEY, Mayor.

MUNICIPAL BONDS FOR SALE.

Notice is hereby given that sealed proposals will be received by the Auditor and Police Judge of the City of Astoria, Clatsop county, State of Oregon, until Tuesday, the 5th day of June, 1894, at 2 o'clock p. m., for the sale of Astoria municipal bonds in the sum of \$20,000 for ten years' time, and to bear interest at the rate of 6 per cent per annum, payable semi-annually. The right to reject any and all bids is hereby reserved. By order of the Common Council. Attest: K. OSBURN, Auditor and Police Judge, City of Astoria. Astoria, Oregon, May 17, 1894.

ADMINISTRATOR'S NOTICE.

Notice is hereby given that the county court of Clatsop county, Oregon, has appointed the undersigned administrator of the estate of Antonio Magne, deceased. All persons having claims against said estate are requested to present same to the undersigned at his place of business in the city of Astoria, Or., duly verified as by law required, within six months from this date. All persons indebted to said estate are notified to pay same immediately. ALEXANDER GILBERT, Administrator of the estate of Antonio Magne, deceased.

CITATION.

In the County Court of the State of Oregon, for the County of Clatsop. In the matter of the estate of G. K. Grimes, deceased, citation, to Nora Colwell—Greeting: In the name of the state of Oregon, you are hereby cited and required to appear in the County Court of the State of Oregon, for the County of Clatsop, at the court room thereof, at Astoria, in the County of Clatsop, on Monday, the 25th day of June, 1894, at eleven o'clock in the forenoon of that day, and there to show cause, if any there be, why an order should not be made to sell lots one (1), two (2) and three (3), in section 16, township 6, north of range 10, west of Will. Mer., to pay the debts of said estate, and expenses as prayed for in the petition of E. M. Grimes, administrator, filed this date. Witness, the Hon. C. A. McGuire, Judge of the County Court of the State of Oregon, for the County of Clatsop, with the seal of said court affixed, this 21st day of May, A. D. 1894. (Seal.) Attest: C. J. TRENCHARD, Clerk.

SUNSHINE comes, no matter how dark the clouds are, when the woman who is borne down by woman's troubles turns to Dr. Pierce's Favorite Prescription. If her life is made gloomy by the chronic weaknesses, delicate derangements, and painful disorders that afflict her sex, they are completely cured. If she is overworked, nervous, or "run-down," she has now life and strength. "Favorite Prescription" is a powerful, invigorating tonic and a soothing and strengthening nerve, purely vegetable, perfectly harmless. It regulates and promotes all the proper functions of womanhood, improves digestion, enriches the blood, dispels aches and pains, brings refreshing sleep, and restores health and vigor. For every "female complaint" and disturbance, it is the only remedy so sure and unfailing that it can be guaranteed. If it doesn't benefit or cure, you have your money back.

How is Your Blood? I had a malignant breaking out on my leg below the knee, and was cured sound and well with two and a half bottles of S.S.S. Other blood medicines had failed to do me any good. W. C. BEATTY, Yorkville, S. C. I was troubled from childhood with an aggravated case of Eczema, and three bottles of S.S.S. cured me. WALLACE MANN, Memphis, T. T. Our book on Blood and Skin Diseases mailed free. WELLS' GREAT PEPPERS CO., ASTORIA, OR.

CANTAL-MIDY These tiny Capsules are superior to Balsam of Capilla, Culebra and Injections. MIDY They cure in 48 hours the same diseases without any inconvenience. SOLD BY ALL DRUGGISTS.

I do not Eat Pastry. How often you hear this expression, and the explanation that usually follows: "I am troubled with dyspepsia." The explanation is not far to seek. In the past lard has been used as the principal shortening in all pastry, the result—dyspepsia. The dyspeptic need no longer be troubled, providing is substituted for lard in the preparation of all food. It is composed strictly of highly refined vegetable oil and beef suet. When used as a shortening, it produces wholesome and healthful pastry. Physicians and expert cooks indorse it. Refuse substitutes. Send three cents in stamps to N. K. Fairbank & Co., Chicago, for handsome Cottolene Cook Book, containing six hundred recipes, prepared by nine eminent authorities on cooking. Cottolene is sold by all grocers.

COTTOLENE is substituted for lard in the preparation of all food. It is composed strictly of highly refined vegetable oil and beef suet. When used as a shortening, it produces wholesome and healthful pastry. Physicians and expert cooks indorse it. Refuse substitutes. Send three cents in stamps to N. K. Fairbank & Co., Chicago, for handsome Cottolene Cook Book, containing six hundred recipes, prepared by nine eminent authorities on cooking. Cottolene is sold by all grocers.



Men walk blocks to come to us for their cigars. They have for years. They will come farther than ever now that we are selling the celebrated IDEAL AMERICAN. A genuine Key West Cigar, for ten cents. CHARLES OLSEN, DEALER IN CIGARS, PIPES AND TOBACCO, 927 Third Street.

HUNTER & MERGERS, Proprietors of the Portland Butchering Co.'s Markets. Corner Second and Benton streets. Corner Third and West Eighth streets. J. A. FASTABEND, GENERAL CONTRACTOR, PILE DRIVER, HOUSE, BRIDGE AND WHARF BUILDER. Address, box 180, Postoffice, ASTORIA, OR.

CHICAGO, MILWAUKEE And ST. PAUL RAILWAY. Connecting with All Transcontinental Lines is the Only Line running ELECTRIC - LIGHTED - CARS BETWEEN St Paul and Chicago. —AND— Omaha and Chicago. The Express Trains consists of Vestibuled, Sleeping, Dining and Parlor Cars. HEATED BY STEAM. And furnished with Every Luxury known in modern railway travel. For SPEED, COMFORT and SAFETY This Line is Unequaled. Tickets on sale at all prominent railway offices. For further information inquire of any ticket agent. C. J. EDDY, General Agent. J. W. CASEY, Trav. Pass. Agt. PORTLAND, OREGON.

A COOKING SCHOOL now exists which, recognizing the importance of having plenty of milk on hand for cooking purposes, has found that Borden's Peerless BRAND Evaporated Cream fully meets its requirements, and therefore highly indorses same. Prepared and guaranteed by the New York Condensed Milk Co. Decidedly superior to unprepared milk or cream.

Kopp's Beer Hall. Choice Wines, Liquors and Cigars. KENTUCKY WHISKEY Only handed over the bar. The largest glass of N. P. Beer. Half-and-half, 5c. Free Lunch. Erickson & Wirkkals, Proprietors, Cor. Concomly and Lafayette Sts.

THE Astoria National Bank TRANSACTS A General Banking Business Accounts of Firms and Individuals solicited on favorable terms. Foreign and Domestic Exchange bought and sold. Money loaned on personal security. Interest paid on time deposits as follows: For 3 months, 4 per cent per annum For 6 months, 5 per cent per annum For 12 months, 6 per cent per annum A Savings Department. Having been established in connection with the above, deposits will be received in sums of one dollar and upward. Interest will be allowed as follows: On ordinary savings books, 4 per cent per annum; on term savings books, 6 per cent per annum.

The Astoria National Bank D. K. WARREN, President. J. E. HIGGINS, Cashier. J. C. DEMENT, Vice-Prest. D. K. WARREN, J. C. DEMENT, C. S. WRIGHT, JOHN HOBSON, THEO. BRACKER, Directors.

THE ASTORIA SAVINGS BANK Acts as trustee for corporations and individuals. Deposits solicited. Interest will be allowed on savings Deposits as follows: On ordinary savings books, 4 per cent per annum. On term savings books, 6 per cent per annum. On certificates of deposit: For three months, 4 per cent per annum. For six months, 5 per cent per annum. For twelve months, 6 per cent per annum. J. Q. A. BOWLBY, President. RENE YOUNG, Vice President. FRANK PATTON, Cashier. W. E. DEMENT, Secretary. DIRECTORS: J. Q. A. Bowlby, C. H. Page, G. A. Nelson, Benj. Young, A. S. Reed, D. P. Thompson, W. E. Dement.

Push a Lucky Man Into the Nile, says the Arabian proverb, and he will come out with a fish in his month. Our Buyer was elated last month, and when he returned home he says: "I got 'em; got 'em cheap; got 'em to sell; got 'em no so to undersell all other dealers in Fine Kentucky Whiskies on the Coast. Over fifty demijohns of it went out yesterday—but customers went with them."

EVERY REQUISITE FOR First Class Funerals: POHL'S Undertaking Parlor, THIRD STREET. Rates Reasonable. Embalming a Specialty.

THE OCCIDENT HOTEL Is the Best of Its Class On the Pacific Coast. AN UNEXCELLED TABLE. Rates, \$2 daily and upwards.

The C. P. UPSHUR Co., Shipping & Commission Astoria, Oregon.

ROSS HIGGINS & CO. Grocers, and Butchers. Astoria and Upper Astoria. Fine Teas and Coffees, Table Dainties, Domestic and Foreign Fruits, Vegetables, Sugar Cured Hams, Bacon, etc. Choice - Fresh - and - Salt - Meats.

NEW CARPETS We can say of carpets what was said of furniture a day or two since—that this stock is not only the best in Astoria, but twice over the largest. There's a Laying inspiration in our prices, too. No matter what kind of carpets you want, come to us, for we have it. Chas. Heilborn & Son.

GREATLY REDUCED RATES MADE BY THE Southern Pacific Co. FOR THE CALIFORNIA Midwinter Fair ROUND TRIP TICKETS GOOD FOR 30 DAYS PORTLAND TO SAN FRANCISCO AND RETURN \$27.50 EXCURSION TRIPS FROM SAN FRANCISCO to other points in California will be allowed purchasers of special Midwinter Fair tickets at the following round-trip rates: TO STATIONS UNDER 100 MILES FROM SAN FRANCISCO, ONE AND ONE-THIRD (one and one-third) way fare; TO STATIONS 100 MILES OR MORE FROM SAN FRANCISCO, ONE AND ONE-FIFTH (one and one-fifth) way fare. For Special rates and full information, inquire of J. B. KIRKLAND, Dist. Passenger Agent at 134 Front St., Portland, Or., or address the undersigned. RICH'D GRAY, T. H. GOODMAN, Gen. Traffic Manager, Gen. Passenger Agent, SAN FRANCISCO, CAL. E. P. ROGERS, A. G. P. A., Portland, Oregon.

ASTORIA IRON WORKS, Concomly St., foot of Jackson, Astoria. General Machinists and Boiler Makers. Land and Marine Engines, Boiler work, Steamboat and Cannery Work a Specialty. Castings of All Descriptions Made to Order on Short Notice. John Fox, President and Superintendent. A. L. Fox, Vice President. O. B. Prael, Secretary.

FREEMAN & BREMNER, Blacksmiths. Special attention paid to steamboat repairing, first-class horseshoeing, etc. LOGGING CAMP WORK A SPECIALTY. 197 Olney street, between Third and Fourth, Astoria, Or.

Seashore Railroad Leave Seaside at 7:30 a. m. daily, except Sundays. Leave Young's Bay at 9 a. m. Monday, Wednesday, Thursday and Friday. Leave Young's Bay at 3:30 p. m. Tuesday and Saturday.

ASTORIA WOOD YARD D. & D. R. Campbell, Proprietors. Dealers in all kinds of First Class Fuel. Fir, Vine Maple, Spruce Limbs, Alder, Hemlock and Ash. Also, best grades of Wellington, Newcastle, Cannel, and Cumberland coal. Leave orders at Canrahan & Co.'s store, or at yard, foot of Spruce street. Orders promptly filled, and SATISFACTION GUARANTEED.